SPECIFICATION AMENDMENTS

Please replace the paragraph on page 4, lines 2-11 with the following:

Referring to Figure 1, a conditional access analog television broadcast transmitter (e.g., TV broadcaster) 10 may transmit, from an antenna 12, subcarriers modulated by analog video information 18 and digital audio information 20. The analog video information 18 may be in a format conventionally used for wired or wireless television broadcasts. An example of a wireless television broadcast is an airwave broadcast and an example of a wired broadcast is a cable system television broadcast.

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Please replace the paragraph on page 4, lines 11-20 with the following:

In accordance with one embodiment of the present invention, the audio information 20 is digitally encoded, compressed and then broadcast on a subcarrier with the analog video information 18 broadcast on an accompanying subcarrier. The transmitted television information (audio and video) may be received by antennas or other video input devices 14 associated with conditional access television receivers (e.g., analog TV receiver) 16. A large number of television receivers 16 may be coupled to the audio/video transmission through a conventional antennas or through cable distribution system.

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Please replace the paragraph on page 4, line 21 through page 5, line 2 with the following:

Referring to Figure 2, the signal processing of the transmitter 10 begins by receiving an audio input signal, a video input signal and a clock input signal. The clock signal is utilized to generate an audio subcarrier and a video [[carrier]] subcarrier in the [[clock generator]] carrier generation block 104. The audio input signal is filtered at filter block 100 and then processed in audio processing block 102.

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Please replace the paragraph on page 5, lines 3-9 with the following:

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At the same time, the video input signal is filtered in the filter block 106 and modulated in the video modulator block 108 using the video [[carrier]] subcarrier to produce an analog video signal 18. The analog video signal 18 and the digital audio signal 20 are added together in an adder 110. After the signals are filtered at the filter block 112, they may be broadcast from the antenna 12.

Please replace the paragraph on page 5, lines 10-15 with the following:

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On the receiver 16 end, the signal from the antenna or other video source 14 is subjected to video detection in the video detector block 114 in Figure 3. The video detector 114 separates the audio signal 20 from the video signal 18. The video signal is subject to further video processing in the video processing block 116.

Please replace the paragraph on page 5, lines 16-25 with the following:

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A variety of techniques may be used to obscure the analog video signal 18 to prevent interception and viewing by unauthorized persons. In one embodiment, shown in Figure 4, the video frames 202 to be broadcast by the transmitter 10 are received by an obscuration block 220. The block 220 further receives a graphics pattern 204 from a graphics pattern generator 230. The block 220 adds the graphics pattern 204 to the frame 202, to produce an obscured frame 210. A plurality of obscured frames 210 may comprise an obscured analog video signal 212.

Please replace the paragraph on page 6, lines 8-15 with the following:

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Encrypted pattern identifier 214 may then be transmitted with the obscured analog video signal 212. Accordingly, adder 234 combines the signals 212 and 214 to produce an obscured analog video signal 18 that includes encrypted pattern information. In one embodiment of the present invention, the encrypted pattern identifier 214 is transmitted on the vertical blanking interval (VBI) of the obscured analog video signal [[218]] 18.

Please replace the paragraph on page 6, lines 16-23 with the following:

The receiver 16 includes a graphics subsystem 34 with a graphics controller 320 and a frame buffer 312. The graphics subsystem 34 may receive the obscured analog video signal 18 from the transmitter 10. The graphics controller 320 sends each frame of the analog video signal 18 to a frame buffer 312. The graphics controller 320 extracts the encrypted pattern identifier 214 from the incoming signal [[216]] 18 and sends the signal to a system memory 26.

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Please replace the paragraph on page 6, line 24 through page 7, line 4 with the following:

In system memory 26, decryption 340, followed by a pattern construction (e.g., construct pattern block) 342, are performed on the pattern identifier 214, in one embodiment of the invention. These operations produce a new graphics overlay pattern 344, to be added to the obscured video frame 18 in the frame buffer 312. An unobscured analog video signal 22 may then be sent to a display such as a television set (not shown).

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Please replace the paragraph on page 7, lines 9-17 with the following:

Each frame 202 is coupled with a graphics pattern 204 to produce an obscured frame 210. The [[frame]] pattern identifier 206 associated with the graphics pattern 204 is added to the obscured frame 210, to produce an obscured and encoded signal 18, prior to transmission. The transmitter 10 may then send the obscured signal 18 to a receiver 16. Without removing the obscuration from the signal 18, an interceptor of the signal can only view an image that is confusing and frustrating.

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Please replace the paragraph on page 7, lines 18-26 with the following:

In the receiver 16, obscuration removal software directs the graphics controller 320 to send the video frame 210 to the frame buffer 312 and the encrypted pattern identifier [[24]] 214 to the system memory 26. The obscuration removal software encrypts the pattern identifier 214 residing in the system memory 26. From the decrypted pattern identifier, the software may

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A12 further construct a graphics pattern that is complementary to the graphics pattern 204 created at the transmitter 10.

Please replace the paragraph on page 8, lines 7-18 with the following:

A13 Referring to Figure 5, the broadcast transmitter 10 generates a digital audio signal 20 from an analog audio signal received by analog to digital converter 42. The converter 42 converts the audio signal into a digital form so it can be compressed in a compressor shown as the compress block 44. Any of a wide variety of compression techniques may be utilized including those in accordance with The Motion Picture Experts Group compression standards MPEG-1, layer 3, International Organization for Standardisation (Geneva Switzerland) ISO/TEC 11172-3 (1993) (commonly called "MP3"). In one embodiment of the present invention, a bit stream of a 100 Kbits per second may result.

Please replace the paragraph on page 8, lines 19-24 with the following:

A14 The compressed audio stream may be compressed sufficiently to be useful with the bandwidth available for the audio component of the television broadcast. The compressed audio stream may be encrypted in an encryption unit shown as the encrypt block 45. Any conventional digital encryption technique may be utilized.

Please replace the paragraph on page 8, line 25 through page 9, line 6 with the following:

A15 Next, the encrypted, compressed bit stream is modulated in a modulator shown as the modulate block 46. The modulator 46 modulates the frequency-modulated subcarrier produced by the television transmitter 10. The modulator 46 may also band limit the signal to avoid interference between the video and audio components. A band limited digital audio signal results that may only be perceived, if intercepted, as white noise.

Please replace the paragraph on page 9, lines 13-19 with the following:

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The modulated audio signal may be converted into a plurality of frequency division subchannels. In Figure [[3]] 5, four such subchannels are shown for illustration purposes. Each of the subchannels is then subjected to an inverse fast Fourier transform (IFFT) in the unit 48 to implement Orthogonal Frequency Division Multiplexing in one embodiment.

Please replace the paragraph on page 12, lines 4-9 with the following:

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The inverse Fourier fast transform signal is then converted from a parallel to a serial format and from a digital to an analog format, in the digital to analog converter 50, resulting in a digital audio signal 20. The signal 20 is broadcast by the transmitter 10 shown in Figure 4 on a subcarrier.

Please replace the paragraph on page 12, lines 10-15 with the following:

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Referring to Figure 6, the receiver 16 may include a processor 22 coupled to a north bridge 24 in one embodiment. The north bridge 24 is coupled between a bus 28 and system memory 26. The bus 28 couples a south bridge 30 and a graphics subsystem 34. The graphics subsystem 34 includes a frame buffer [[312]] 36.

Please replace the paragraph on page 12, lines 16-22 with the following:

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The graphics subsystem 34 is coupled to a TV tuner/capture card 38. The card 38 is coupled to an audio processing section 40 which receives both the audio 20 and video signals 18 from an antenna or other video input device 14 shown in Figure 1. The TV tuner/capture card 38 is also coupled to e.g., an audio block 32, such as an audio coder/decoder (CODEC) [[32]] which is in turn coupled to the south bridge 30.

Please replace the paragraph on page 12, line23 through page 13, line 3 with the following:

Turning next to Figure 7, the audio processing section 40 takes the audio signal 20 and converts it into a digital form in analog to digital converter 52. The converter 52 also takes the serial bit stream and converts it into a set of parallel bit streams. The parallel bit streams are fast Fourier transformed in the FFT 54 and passed on to a demodulator such as the demodulate block 56.

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Please replace the paragraph on page 13, lines 4-10 with the following:

The demodulator 56 reverses the modulation previously accomplished by the modulator 46. The demodulated serial bit stream signal is then decrypted in the [[decryption]] decrypt unit 57 and decompressed in the [[decompression]] decompress unit 58. Finally, the audio signal is converted back into an analog form by a digital-to-analog converter 60 and added to the video signal 22 shown in Figure 4 by an adder [[22]]. The resulting signal is passed on to the TV tuner/capture card 38.

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